

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/007278

A. CLASSIFICATION OF SUBJECT MATTER  
Int.Cl<sup>7</sup> C21D8/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
Int.Cl<sup>7</sup> C21D8/00-8/10, B21B1/00-3/02Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
Jitsuyo Shinan Koho 1922-1996 Toroku Jitsuyo Shinan Koho 1994-2004  
Kokai Jitsuyo Shinan Koho 1971-2004 Jitsuyo Shinan Toroku Koho 1996-2004Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
JICST

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2000-309850 A (Director General of National Research Institute for Science and Technology Agency), 07 November, 2000 (07.11.00), Claims; column 3, lines 7 to 23; table 1; column 7, lines 1 to 8 (Family: none)	1-13
A	JP 2002-137002 A (Daido Steel Co., Ltd.), 14 May, 2002 (14.05.02), Column 1, lines 22 to 35 (Family: none)	1-13

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search  
20 August, 2004 (20.08.04)Date of mailing of the international search report  
07 September, 2004 (07.09.04)Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2002-192201 A (Independent Administrative Institution National Institute for Materials Science), 10 July, 2002 (10.07.02), Column 1, lines 35 to 45; column 4, line 45 to column 5, line 1; column 5, lines 33 to 47 (Family: none)	1-13
P,A	JP 2003-253332 A (Independent Administrative Institution National Institute for Materials Science), 10 September, 2003 (10.09.03), Claims (Family: none)	1-13
P,A	OMORI et al., "Onkan Ta-Pass-Ko Roll Atsuen ni Yoru Chobisai Ferrite Soshikiko no Sosei", Tetsu to Hagane, 01 July, 2003 (01.07.03), Vol.89, No.7, pages 781 to 788	1-13
A	JP 2000-309823 A (Nippon Steel Corp.), 07 November, 2000 (07.11.00), Claims (Family: none)	1-13
A	AKIO OHMORI et al., "Mechanical Properties of Warm Rolled Steel Plates with Ultrafine-grained Ferrite and Cementite Structures", Current advances in materials and processes, 2001, Vol.14, page 1050	1-13

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**<Object of Search>**

Claims 1-13 involve any rolling method. However, it is only a rolling by a steel bar groove roll as described in the specification that is disclosed in the meaning of PCT Article 5. Even if common general technical knowledge is taken into account in the application, the any rolling method is inadequately supported in the meaning of PCT Article 6.

Accordingly, the search was performed in a scope adequately supported by and disclosed in the specification, i.e., on the rolling by the steel bar groove roll specifically described in the specification.